



MODEL G0634XP POLAR BEAR SERIES 12" JOINTER/PLANER MANUAL INSERT

Congratulations on your purchase of the Model G0634XP 12" Jointer/Planer! The Model G0634XP is the same machine as the Model G0634 but with a "cool" new look, a different type of spiral cutterhead, and a new end-mounting fence. Except for the differences noted in this insert, all other content in the Model G0633/G0634 manual applies to this machine. Before operating your new machine, you **MUST** read and understand this insert and the entire G0633/G0634 manual to reduce the risk of serious personal injury.

If you have any questions about this manual insert or the differences between the Model G0634XP and the Model G0633/G0634, contact our Technical Support at (570) 546-9663 or email techsupport@grizzly.com.

Machine Inventory

After all the parts have been removed from the crate, you should have the following items:

Common Components (Figure 1)	Qty
A. Jointer/Planer Assembly (Not Shown).....	1
B. Push Blocks.....	2
C. Cutterhead Guard Assembly.....	1
D. Hardware and Tools (Not Shown)	
— Wrenches 8/10, 12/14mm	1 Ea
— Hex Wrenches 3, 4 mm, 3/32"	1 Ea

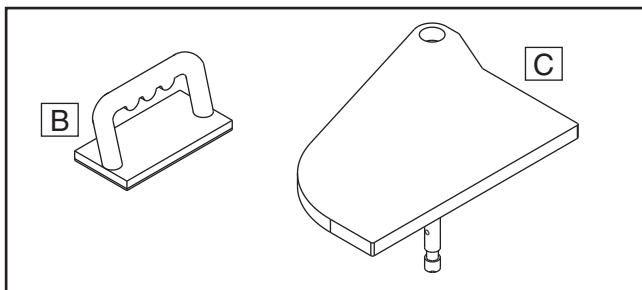


Figure 1. Common components.

Spiral Cutterhead Hardware (Figure 2)

E. Spiral Cutterhead Hardware	
— Indexable Carbide Inserts.....	5
— Flat Hd Torx Screws 10-32 x 1/2" T25....	10
— Torx Drivers T25	5
— T-Handle Wrench 1/4"	1

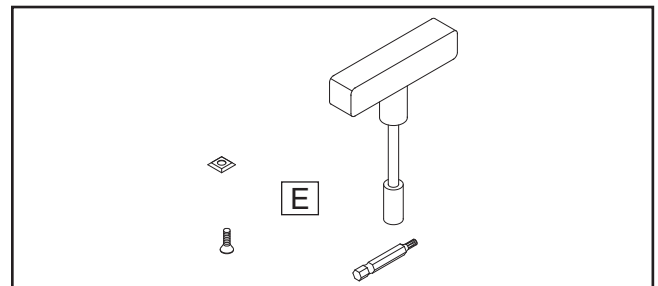
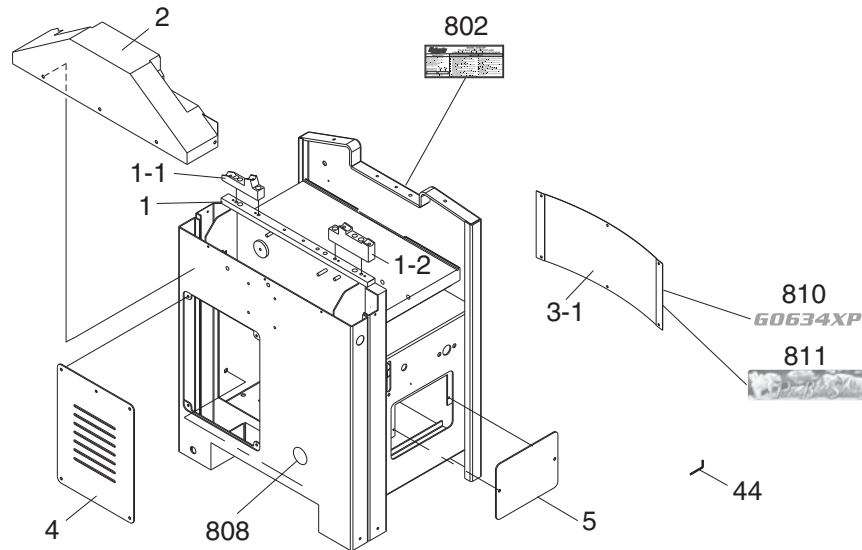


Figure 2. Spiral cutterhead hardware.

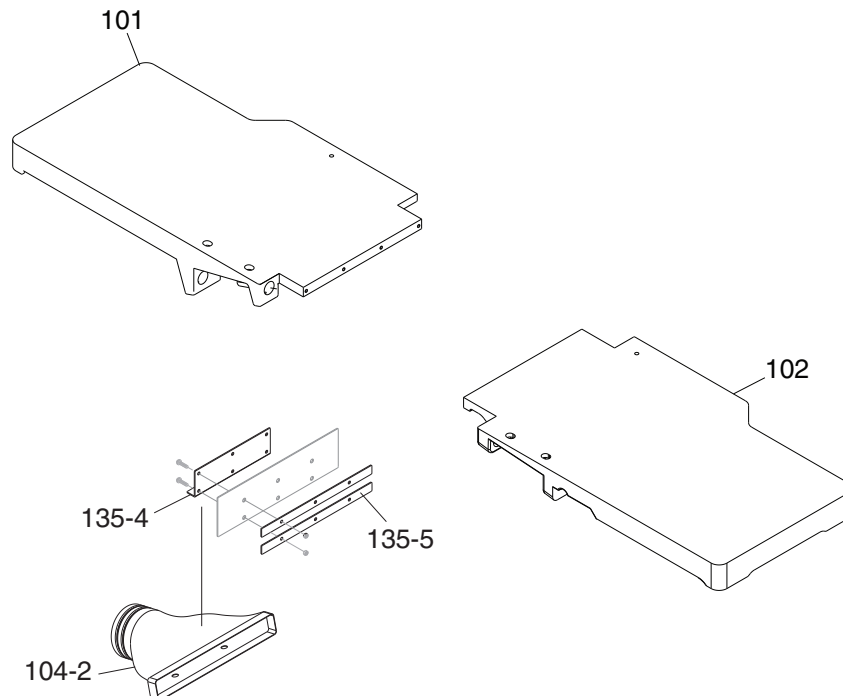
Stand Assembly Parts Breakdown



REF	PART #	DESCRIPTION
1	P0634XP001	FRAME
1-1	P0634XP001-1	HINGE SHAFT BRACKET RIGHT
1-2	P0634XP001-2	HINGE SHAFT BRACKET LEFT
2	P0634XP002	DRIVE SHAFT COVER
3-1	P0634XP003-1	COVER
4	P0634XP004	DOOR

REF	PART #	DESCRIPTION
5	P0634XP005	SIDE OPENING COVER
44	P0634XP044	HEX WRENCH 3/32
802	P0634XP802	MACHINE ID LABEL
808	PPAINT-24	PB WHITE TOUCH-UP PAINT
810	P0634XP810	MODEL # LABEL
811	PLABEL-75	POLAR BEAR LOGO 2-1/2 X 9-1/2

Table Assembly Parts Breakdown

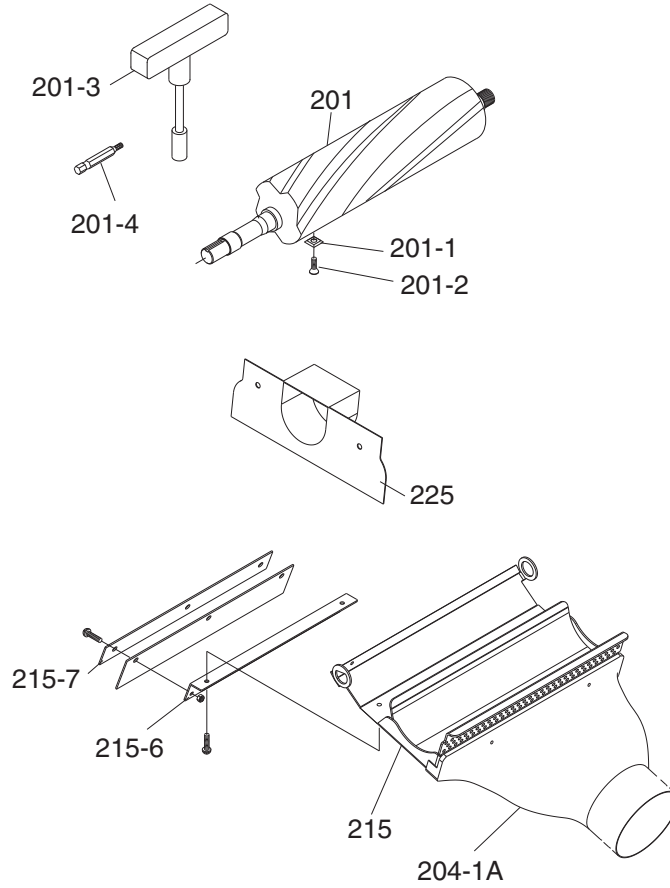


REF	PART #	DESCRIPTION
101	P0634XP101	INFEED TABLE
102	P0634XP102	OUTFEED TABLE
104-2	P0634XP104-2	JOINTER DUST PORT

REF	PART #	DESCRIPTION
135-4	P0634XP135-4	L BRACKET
135-5	P0634XP135-5	PLATE



Cutterhead & Motor Parts Breakdown

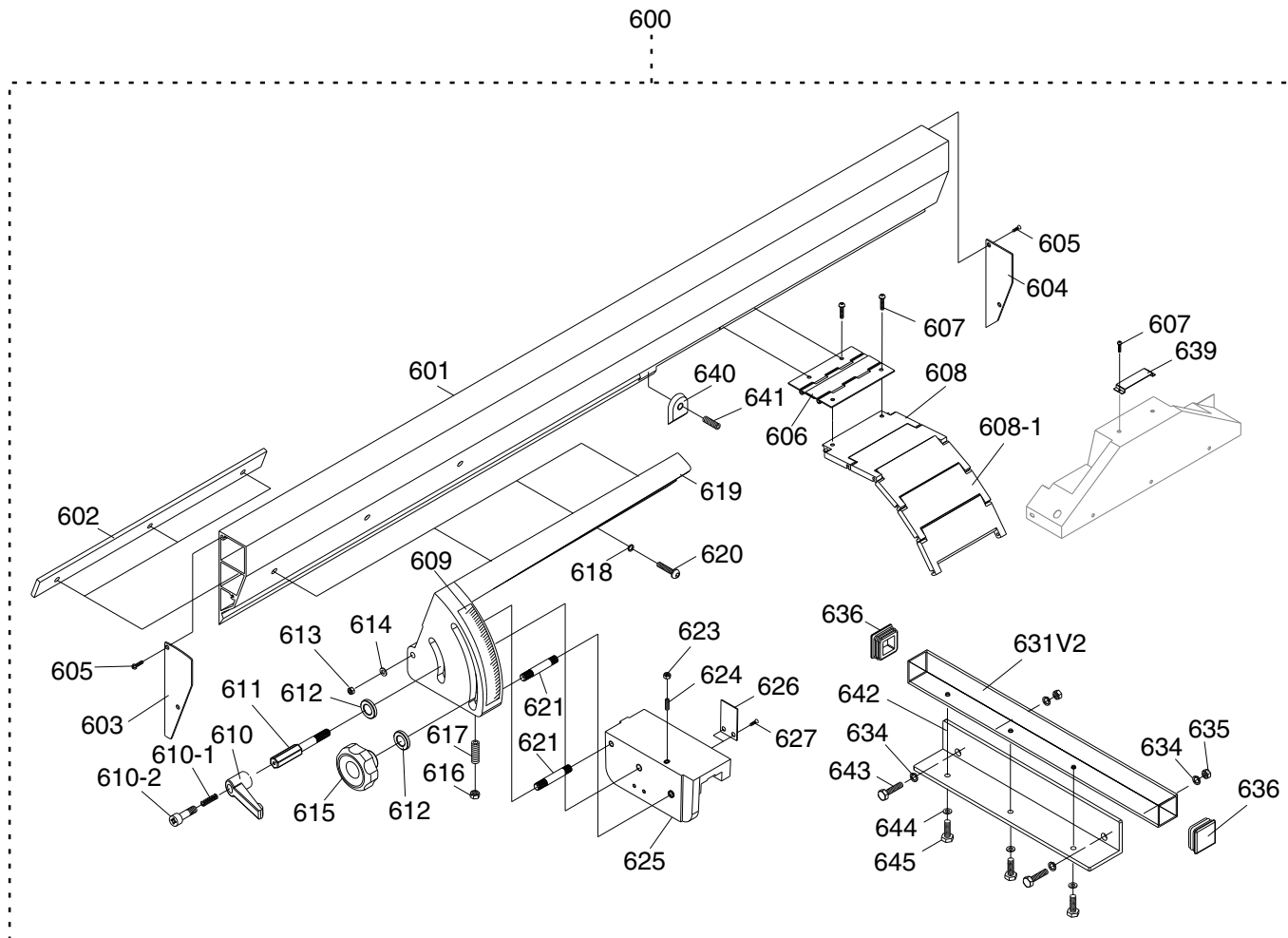


REF	PART #	DESCRIPTION
201	P0634Z201V2	SP CUTTERHD 12" 10-32 V2.09.09
201-1	H9893	INDEXABLE CUTTER 15 X 15 X 2.5
201-2	PFH32	FLAT HEAD TORX 10-32 X 1/2
201-3	P0634Z201-3	TORX T-HANDLE WRENCH 1/4
201-4	P0634Z201-4	TORX BIT T-25

REF	PART #	DESCRIPTION
204-1A	P0634XP204-1A	PLANER DUST PORT
215	P0634XP215	DUST CHUTE
215-6	P0634XP215-6	BRACKET
215-7	P0634XP215-7	PLATE
225	P0634XP225	GUARD



Fence/Guard Parts Breakdown



REF	PART #	DESCRIPTION
600	P0634XP600	COMPLETE FENCE ASSEMBLY
601	P0634XP601	FENCE
602	P0634XP602	FENCE FIXED PLATE
603	P0634XP603	LEFT FENCE CAP
604	P0634XP604	RIGHT FENCE CAP
605	PHTEK23	TAP SCREW #10 X 1/2
606	P0634XP606	REAR GUARD HINGE
607	PS17M	PHLP HD SCR M4-.7 X 6
608	P0634XP608	REAR GUARD CONNECTOR
608-1	P0634XP608-1	REAR GUARD LINK
609	P0634XP609	FENCE ANGLE SCALE
610	P0634XP610	FENCE LOCK LEVER
610-1	P0634XP610-1	COMPRESSION SPRING
610-2	P0634XP610-2	PHLP SHOULDER SCR M5-.8 X 15
611	P0634XP611	FENCE LOCK LEVER SCREW
612	PW02	FLAT WASHER 3/8
613	PLN01	LOCK NUT 3/8-16
614	PW02	FLAT WASHER 3/8
615	P0634XP615	ANGLE ADJUSTMENT KNOB 3/8
616	PN02	HEX NUT 5/16-18
617	PSS01	SET SCREW 5/16-18 X 1

REF	PART #	DESCRIPTION
618	PW07	FLAT WASHER 5/16
619	P0634XP619	FENCE ANGLE SUPPORT
620	PCAP03	CAP SCREW 5/16-18 X 1
621	P0634XP621	STUD-UDE 3/8-16 X 2-1/2 1/2 / 3/4RH
623	PN05	HEX NUT 1/4-20
624	PSS10	SET SCREW 1/4-20 X 5/8
625	P0634XP625	FENCE SUPPORT
626	P0634XP626	FENCE SUPPORT PLATE
627	PFH01	FLAT HD SCR 10-24 X 3/8
631V2	P0634XP631V2	FENCE RAIL W/BRACE HOLES V2.04.11
634	PLW04	LOCK WASHER 3/8
635	PN08	HEX NUT 3/8-16
636	P0634XP636	FENCE RAIL END CAP
639	P0634XP639	FIXED PLATE
640	P0634XP640	PLASTIC PROTECTION SHOE
641	PSS29	SET SCREW 10-24 X 1/4
642	P0634XP642	FENCE RAIL BRACE
643	PB16	HEX BOLT 3/8-16 X 1-1/2
644	PW06	FLAT WASHER 1/4
645	PB19	HEX BOLT 1/4-20 X 1/2





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL G0634XP POLAR BEAR SERIES JOINTER/PLANER w/SPIRAL CUTTERHEAD

Product Dimensions:

Weight 500 lbs.
Width (side-to-side)/Depth (front-to-back)/Height 67-1/2 x 24 x 41-1/2 in.
Foot Print (Length/Width) 26 x 19-1/2 in.

Shipping Dimensions:

Type Wood Crate
Content Machine
Weight 610 lbs.
Length/Width/Height 72 x 46 x 30 in.

Electrical:

Power Requirement 220V, Single-Phase, 60 Hz
Minimum Circuit Size 30 Amp
Switch Magnetic with Thermal Overload Protection
Switch Voltage 220V
Cord Length 10 ft.
Cord Gauge 12 Gauge
Plug Included No
Recommended Plug Type NEMA L6-30

Motors:

Main

Type TEFC Capacitor Start Induction
Horsepower 5 HP
Voltage 220V
Phase Single
Amps 25A
Speed 3450 RPM
Cycle 60 Hz
Number Of Speeds 1
Power Transfer Twin V-Belts
Bearings Shielded and Lubricated

Main Specifications:

Fence Information

Fence Length 51-1/4 in.
Fence Height 6 in.
Fence Stops 45 and 90 deg.

Cutting Capacities (Jointer)

Bevel Jointing 0-45 deg.
Maximum Width of Cut 12 in.
Maximum Depth of Cut 1/8 in.
Number of Cuts Per Minute 20,136
Minimum Stock Length 12 in.



Cutting Capacities (Planer)

Maximum Width of Cut	12 in.
Maximum Depth of Cut Planing Full Width.....	1/8 in.
Maximum Depth of Cut Planing 6" Wide Board.....	5/32 in.
Number of Cuts Per Minute	20,136
Number of Cuts Per Inch	75
Feed Speeds.....	22 FPM
Minimum Stock Length	12 in.
Minimum Stock Thickness	1/4 in.
Maximum Stock Thickness	8 in.

Cutterhead Information

Cutterhead Type	Spiral
Cutterhead Diameter.....	3-1/8 in.
Number of Cutter Spirals	4
Number of Indexable Cutters.....	32
Cutter Insert Type	4 Sided Indexable Carbide
Cutter Insert Length	15 mm
Cutter Insert Width.....	15 mm
Cutter Insert Thickness.....	2.5 mm
Cutterhead Speed.....	5034 RPM

Table Information (Jointer)

Table Length	59-1/2 in.
Table Width.....	14 in.
Floor To Table Height.....	35-1/2 in.

Table Information (Planer)

Table Length	23-1/8 in.
Table Width.....	12-1/4 in.
Table Thickness.....	1-5/8 in.
Floor To Table Height.....	32-1/2 in.

Construction

Body Assembly Construction.....	Cast Iron
Cutterhead Assembly Construction	Steel
Infeed Roller Construction	Steel
Outfeed Roller Construction.....	Steel
Stand Construction	Heavy Gauge Sheet Metal
Table Construction.....	Cast Iron
Paint.....	Powder Coated

Other Information

Dust Port Size	4 in.
Number of Dust Ports	2
Measurement Scale (Jointer).....	Inch
Measurement Scale (Planer)	Inch/Metric

Other Specifications:

Country Of Origin.....	Taiwan
Warranty.....	1 Year
Serial Number Location	ID Label on Front of the Stand

Features:

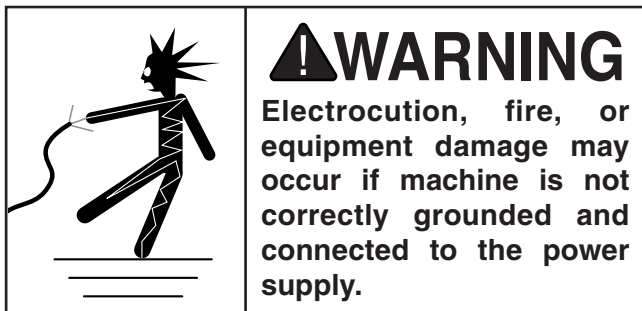
- White Powder Coated Paint
- Quick Release Fence
- Flip Up Tables and Change Lever Simplify Jointer-Planer Conversion
- Jointer Tables Lock Into Raised Position for Planer Operation; Hand Knobs Release Tables
- Cast Iron Infeed and Outfeed Tables
- Dual 4" Dust Ports



SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by a qualified electrician in accordance with all applicable codes and standards.



Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 220V 25 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements in the following section.

Circuit Requirements for 220V

This machine is prewired to operate on a 220V power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 220V/240V
Cycle 60 Hz
Phase 1-Phase
Circuit Rating 30 Amps
Plug/Receptacle NEMA L6-30
Cord 3-Wire, 10 AWG, 300VAC, “S”-Type

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)



Note: *The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the circuit is properly sized for safe operation.*



Grounding Instructions

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

The power cord and plug specified under “Circuit Requirements for 220V” on the previous page has an equipment-grounding wire and a grounding prong. The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances (see figure below).

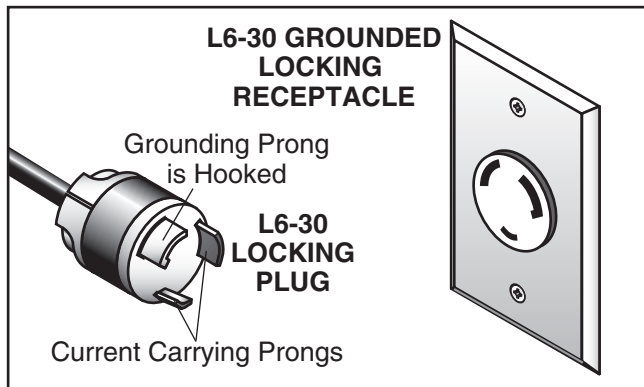


Figure 3. Typical L6-30 plug and receptacle.

⚠️ WARNING

Serious injury could occur if you connect the machine to power before completing the setup process. DO NOT connect to power until instructed later in this manual.

NOTICE

No adapter is available or should be used with this machine. If the machine must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the machine must comply with all local codes and ordinances.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size10 AWG
Maximum Length (Shorter is Better).....50 ft.



Basic Jointer Controls

All basic controls used during routine jointer operations on the G0634XP are the same as those described on **Pages 22–23** of the manual except for "Table Movement," "Fence Movement," and "Fence Tilting."

Table Movement: Unlock the table lock levers, then loosen the cap screws on the infeed handgrip or outfeed table adjustment knob (see **Figure 4**) before moving the infeed and outfeed tables. Use an adjustable wrench to turn the outfeed adjustment knob.

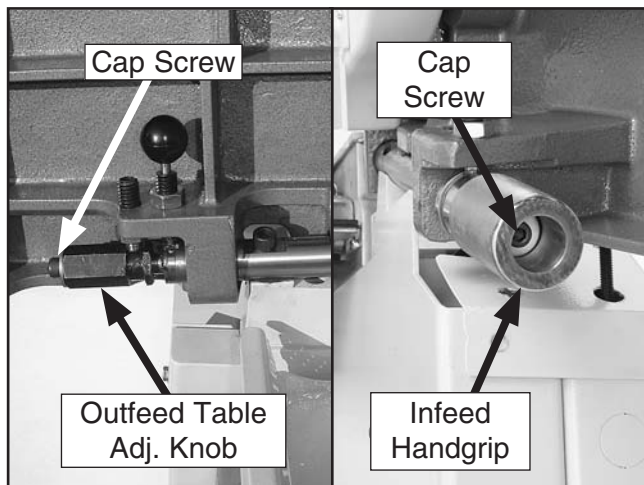


Figure 4. Table control locations.

Fence Movement: The fence lock lever keeps the fence in position (see **Figure 5**). To move the fence, loosen the lever, slide the fence in the desired direction, then tighten the lever.

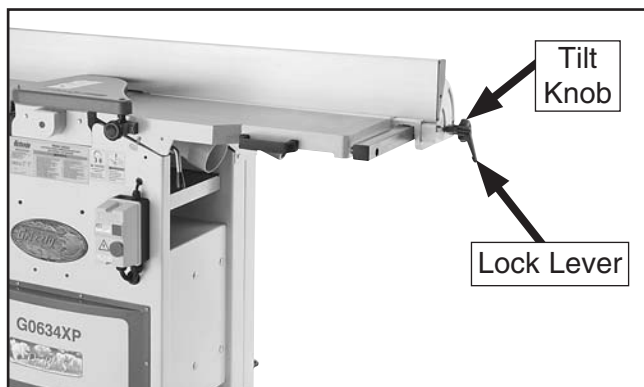


Figure 5. Fence lock location.

Fence Tilting: The tilt knob (**Figure 5**) secures the fence at any position in the available range. Fence stops set the fence at 90° or 45° outward. The tilt knob must be tightened before jointing. See **Page 10** in this insert for more detail on adjusting the fence stops.

To move the fence to 45° outward, loosen the tilt knob, move the fence to the 45° outward position (see **Figure 6**), then tighten the tilt knob. Verify the angle with a 45° square. To return the fence to the 90° position, loosen the tilt knob, raise the fence to 90°, and tighten the tilt knob. Check the fence angle with a 90° square, and make sure the fence and table are flush.



Figure 6. Fence at 45° outward position.

Jointer-Planer Conversion

Model G0634XP jointer-planer operations are the same as those described on **Pages 24–25** of the manual, with the exception of **Step 3**.

To set up the machine for planer operations:

1. DISCONNECT JOINTER/PLANER FROM POWER SOURCE!
2. Remove the cutterhead guard.
3. Loosen the fence lock lever (**Figure 5**) and slide the fence off of the machine.
4. Perform **Steps 4–9** in the manual.



Lubrication

Follow all lubrication instructions outlined on **Pages 35–36** of the manual. Lubricate the G634XP fence with multi-purpose grease, as shown in **Figures 7–8**.

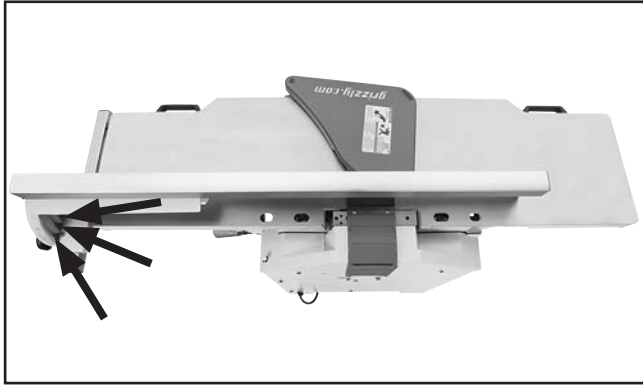


Figure 7. Inside fence lubrication locations.



Figure 8. Outside fence lubrication location.

Setting Fence Stops

The fence stops simplify the task of adjusting the fence to 45° and 90°.

Tools Needed	Qty
45° Square	1
90° Square	1
Sliding Bevel.....	1
Wrench 10mm	1
Wrench 12mm	1
Hex Wrench 3mm.....	1
Hex Wrench 4mm.....	1

To set the 90° fence stop:

1. Loosen the lock nut on the 90° fence stop screw shown in **Figure 9**, and loosen the fence tilt knob.

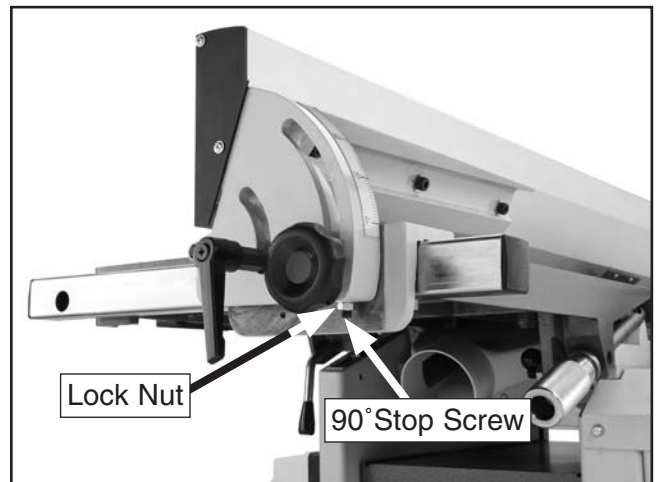


Figure 9. Adjusting fence to 90°.

2. Place a 90° square against the table and fence, and adjust the stop screw so the fence is set exactly at 90°.
3. Tighten the lock nut.



To set the 45° fence stop:

1. Loosen the fence tilt knob and position the fence against the 45° stop bolt.
2. Loosen the lock nut on the 45° fence stop screw (see **Figure 10**).

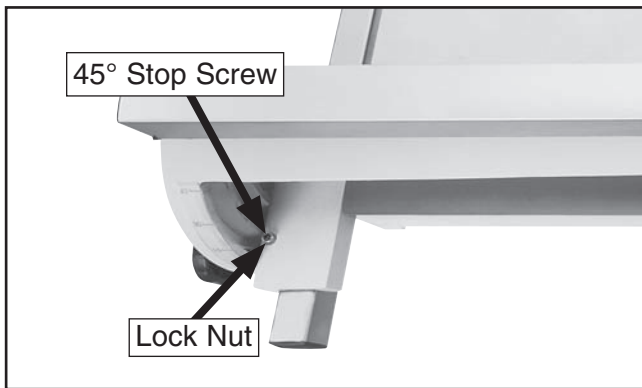


Figure 10. Adjusting fence 45° outward.

3. Adjust the 45° stop screw until the fence is exactly 45° outward while resting on the bolt (check the angle with a sliding bevel set to 135° or with a 45° square).
4. Re-tighten the lock nut loosened in **Step 2**.

Replacing Carbide Inserts

Tools Needed:

Qty

T-Handle Wrench w/T-25 Torx Bit..... 1

The cutterhead is equipped with 32 indexable carbide inserts. Each insert can be rotated to reveal any one of its four cutting edges. Therefore, if one cutting edge becomes dull or damaged, simply rotate it 90° to reveal a fresh cutting edge (**Figure 11**).

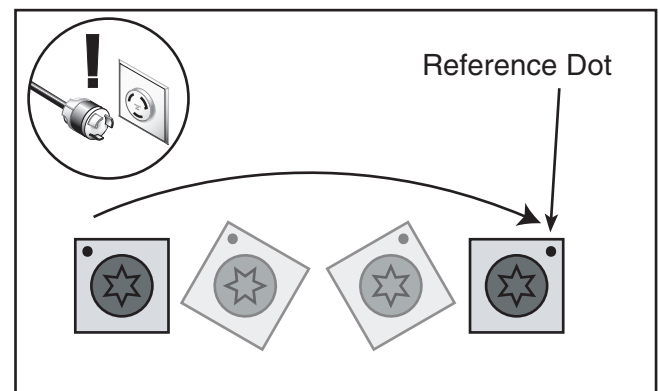


Figure 11. Insert rotating sequence.

In addition, each insert has a reference dot on one corner. As the insert is rotated, the reference dot location can be used as an indicator of which edges are used and which are new. When the reference dot revolves back around to its starting position, the insert should be replaced.

To rotate or change a carbide insert:

1. DISCONNECT JOINTER/PLANER FROM POWER SOURCE!
2. Remove any sawdust from the head of the carbide insert Torx screw.
3. Remove the Torx screw and carbide insert.



4. Clean all dust and dirt off the insert and the cutterhead pocket from which the insert was removed, and replace the insert so a fresh, sharp edge is facing outward.

Note: *Proper cleaning is critical to achieving a smooth finish. Dirt or dust trapped between the insert and cutterhead will slightly raise the insert, and make noticeable marks on your workpieces the next time you plane.*

5. Lubricate the Torx screw threads with a light machine oil, wipe the excess oil off the threads, and torque the Torx screw to 55 inch/pounds.

Note: *Do not overlubricate. Excess oil may squeeze between the insert and cutterhead, thereby lifting the insert slightly and affecting workpiece finishes.*

Accessories

H9893—Carbide Inserts (10 Pk) for G0634XP

These indexable carbide inserts can be rotated to provide four factory sharp edges before replacement. Size: 15 x 15 x 2.5mm.

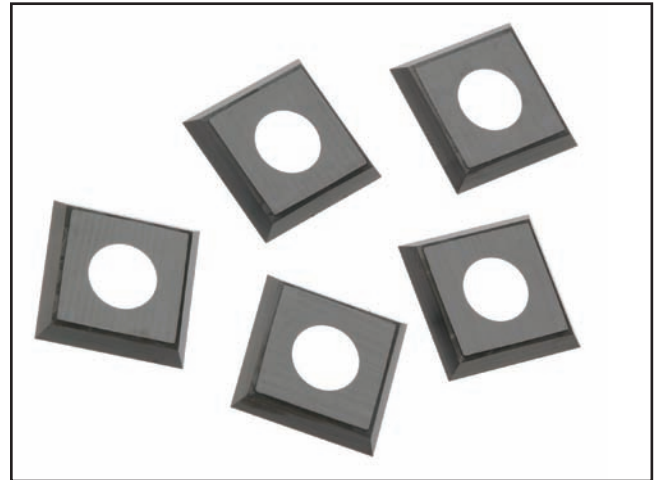


Figure 12. H9893 Carbide Inserts.

